LAB.GRUPPEN

POWER AMPLIFIERS

iP 1350

KEY FEATURES:

2 x 300 watts @ 8 Ω
2 x 500 watts @ 4 Ω
2 x 700 watts @ 2 Ω
(Measured just below clip level, with both channels driven)

- **Compact design: 2U high**
- **Intercooler® cooling system with front-to-rear airflow**
- **Multiple positions gain switch**
- **Easily accessible dust filter**
- **Improved low-end power bandwidth**
- **Neutrik Combo jack and Phoenix terminal block input connectors**
- **Bridged mono outputs in one SpeakOn connector**

The iP 1350 is a space-saving power amplifier, ideal for use in installations as well as in cost-effective live sound systems.

The Iron Power (iP) family of power amplifiers is the new compact and versatile line of professional power amplifiers with classic toroidal iron transformers. To achieve a compact design, the latest semiconductor technology is utilized. This, together with Lab.gruppen's proprietary copper cooling system, Intercooler®, enhances the 2 ohms capacity.

A new Bi-phase wiring scheme also increases the capacity of the power supply. This extends the power bandwidth in the low end.

Besides the traditionally superb Lab.gruppen sonic performance, there is a full line of features to make the iP family functional in all situations from installation to cost-effective live sound systems:

Multiple positions Gain switch

To meet the demands for a flexible gain structure in the system, Lab.gruppen offers a multiple position gain switch. The maximum amplifier gain can be set to all industry standards: 20, 23, 26, 29, 32, 35, 38 and 41 dB.

Versatile input connection

With the Neutrik Combo-jack we offer both the professional XLR-type standard and the semi-pro 1/4" TRS phono-jacks. For installations the 3-pin Phoenix terminal block may be handier.

Soft Start

Toroidal transformers require a huge amount of start current to build up a magnetic flux when the amplifier is switched on. Therefore Lab.gruppen have included a soft start circuit to minimize the risk of blowing the wall fuse and to reduce flickering in the lighting.

Sophisticated protection circuitry, combining:

– ALS™ short circuit protection; the Adaptive Limiting System permits very high peak currents, but keeps the amplifier within the Safe Operation Area.
– DC protection; protects against infrasonic signals
– VHF protection; protects the loudspeakers against strong very high frequency non-musical signals above the audible range.
– Thermal protection; prevents the amplifier from being overheated. The protection indicators on the front panel are switched on, as a warning, before the protection process is initiated.
– AC protection; shuts down the power supply if the line voltage is outside the operating voltage.
– Clip limiter; prevents severely clipped waveforms from reaching the loudspeakers, whilst maintaining full peak power.

SPECIFICATIONS iP 1350

MAX OUTPUT POWER [1)]

	EIA at 1 kHz and 1% THD	**FTC** 20-20kHz @0.1%THD
8 Ω per channel	300 W	280 W
4 Ω per channel	500 W	460 W
2 Ω per channel	700 W[2)]	660[2)] W
8 Ω bridged	1000 W	920 W
4 Ω bridged	1400 W[2)]	1320[2)] W

Max output voltage

8 ohms load	49 Vrms
Peak voltage, no load	77 V

Distortion etc.

THD 20Hz-20kHz and 1W to full power	0,03 %
THD @ 1kHZ and –1dB under clip	0,005 %
DIM 30 at –3dB under clip	0,005 %

Hum and Noise	<-110 dB
Channel separation @10kHz	70 dB
Output impedance	30 mΩ
Slew Rate	45 V/µs

Inputs

Gain, selectable	[dB]	20, 23, 26, 29, 32, 35, 38, 41
Impedance		20 kohm
Common mode rejection		50 dB

Front Panel

Gain controls	(2) channel A, B	31 positions detent
Protect indicator	(2) yellow LEDs	80°C at heatsink or >12kHz at full power or shorted output
Clip Indicator	(2) red LEDs	Fast peak – slow release
Signal present indicator	(2) green LEDs	-40 dB below full output
On Indicator	(2) green LEDs	DC rail voltage for channel A and B

Rear Panel

Input connectors	(2) Neutrik Combo XLR type, 3 pin & 1/4" jack
Input /Link connector	(2) 3-pin Phoenix terminal block
Output connectors	(2) Neutrik 4-pole Speakon connectors
Switches	
Clip limiter A and B	On-Off (switchable)
Link-switch	Ch.A-B

Power	**230 V version**	**115 V version**
Operation voltage	130 V-265 V AC	65 V – 135 V AC
Minimum start voltage	190 V	95 V AC
Full output power at 4ohms	230 V AC	115 V AC
Peak inrush current (Soft start limited)	20 A	10 A

Current Draw @ 4ohms&230V

Quiescent power (no load)	0.6 Arms	1.2 Arms
1/8 of full power (-9dB)	3.5 Arms	7 Arms
1/3 of full power (-5dB)	5.5 Arms	11 Arms
At full power (0 dB) @1 kHz 1% THD	9.5 Arms	19 Arms

Net Dimensions mm (inch)	483 (19") W x 88 (3,5") H x 325 (12.8") D
Shipping Dimensions mm (inch)	560 (22") W x 180 (7.1") H x 500 (19.7") D
Net Weight	15 kg (33 lbs)
Shipping Weight	16.6 kg (36.5 lbs)

Approvals			
	CE	Emission	EN 55 103-1, E3
		Immunity	EN 55 103-2, E3, with S/N below 1% at normal operation level [4)]
		Safety	EN 60 065, class I
	THX	iP1350T	

1) Specifications measured with 230 VAC
2) Component tolerance dependent
3) Continuous power, one channel driven or peak power both channels driven
(Thermal protection may occur at high continuous power)
4) Normal operation level 1/8 of full power or –9dB below clip level.

LAB. GRUPPEN reserve the right to alter functions or specifications without prior notice.

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